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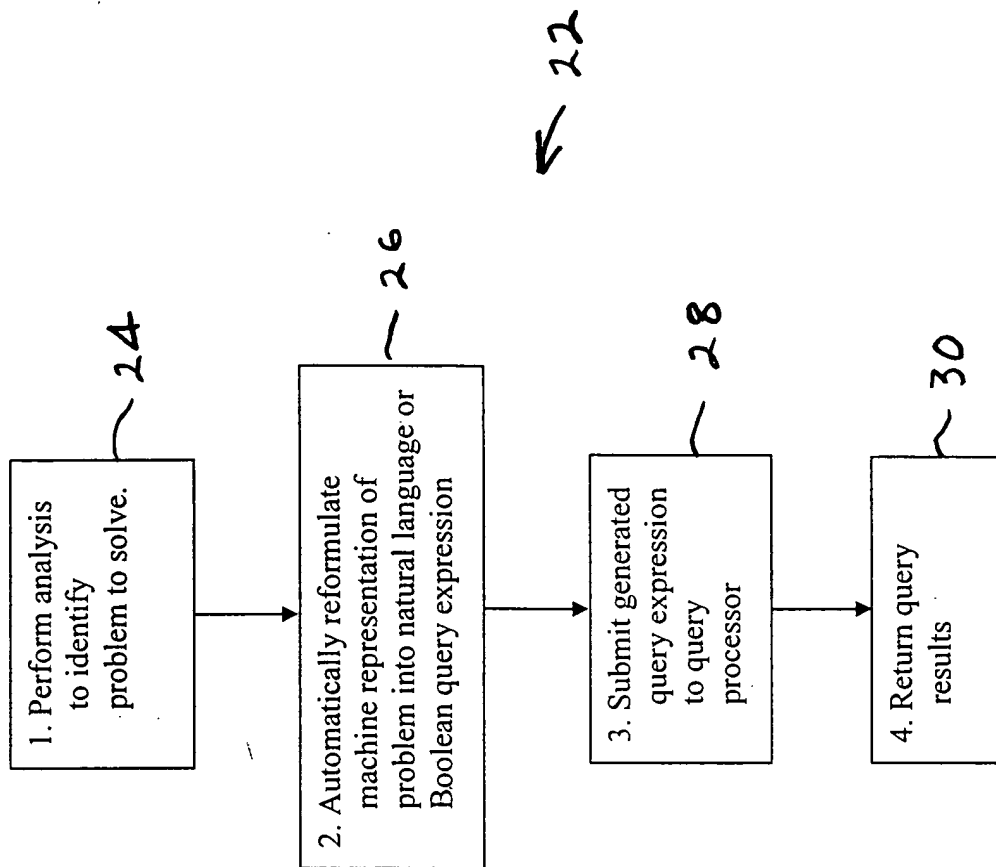


Fig. 6. Flow diagram of a system in accordance with the principles of this invention

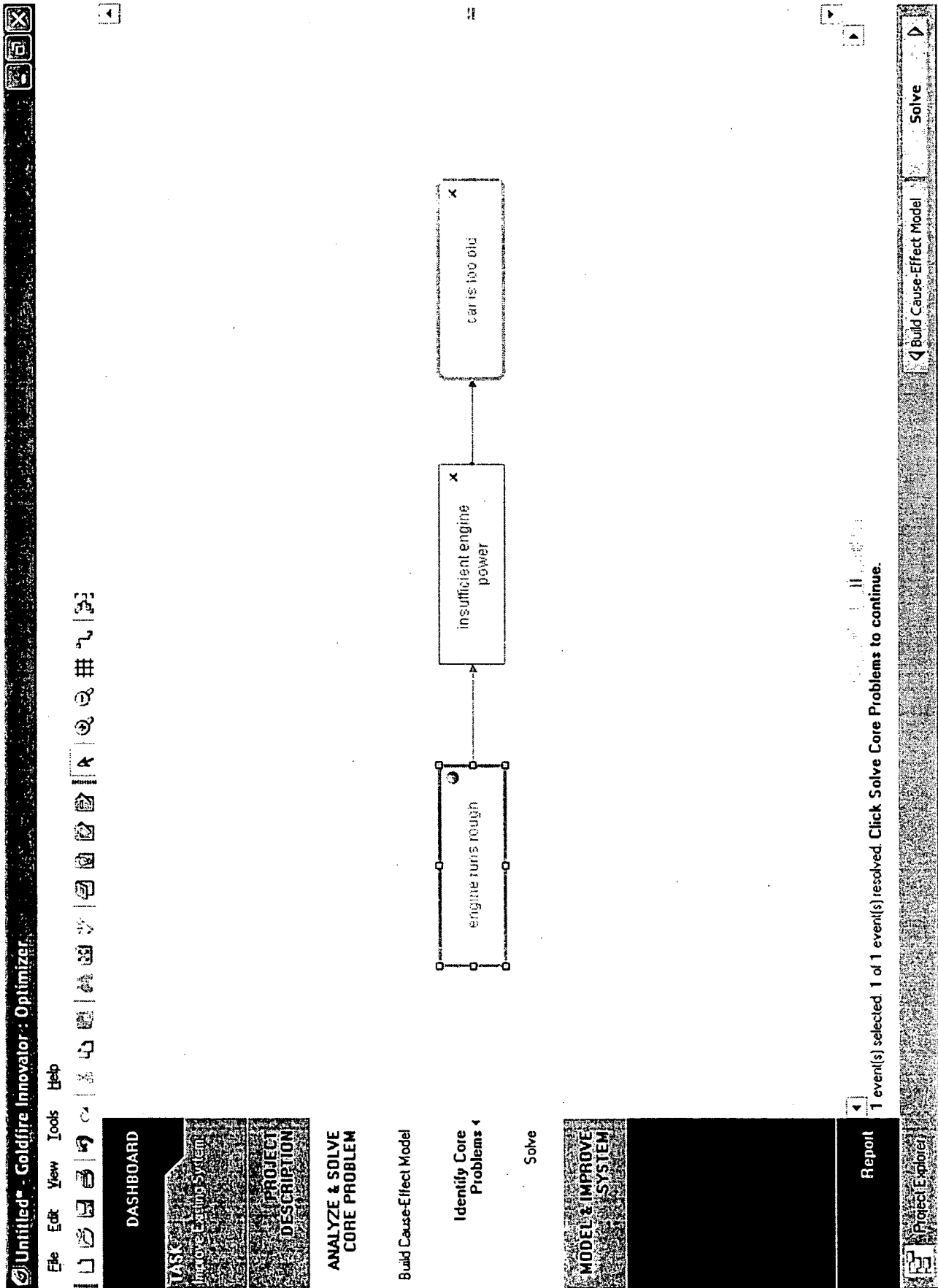


Figure 7 Illustrative screen showing problem analysis tool supporting root cause analysis

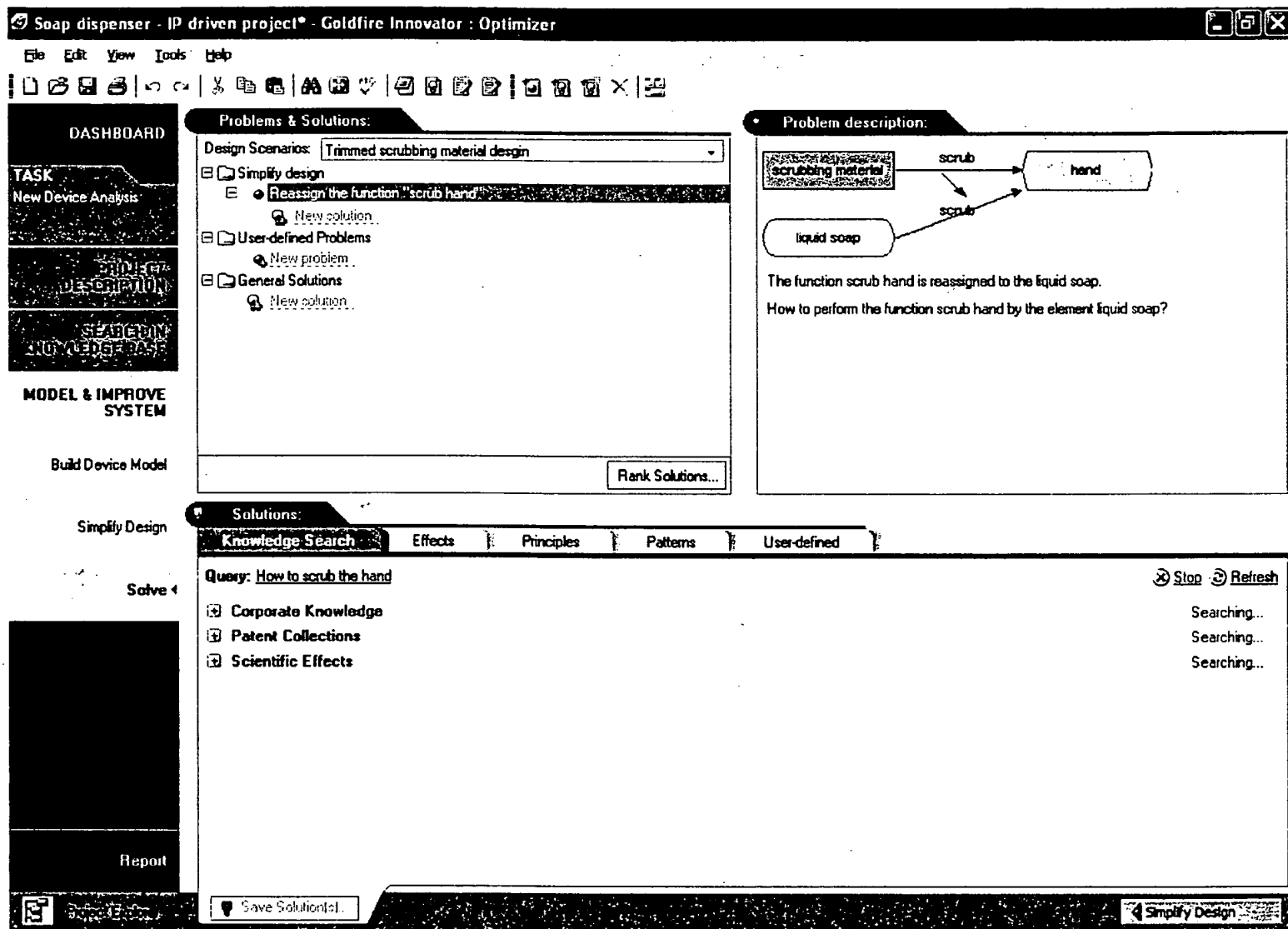


Fig 8

Soap dispenser - IP driven project\* - Goldfire Innovator : Optimizer

File Edit View Tools Help

DASHBOARD

TASK  
New Device Analysis

PROJECT DESCRIPTION

SEARCHED KNOWLEDGE BASE

MODEL & IMPROVE SYSTEM

Build Device Model

Simplify Design

Solve

Report

Problems & Solutions:

Design Scenarios: Trimmed scrubbing material design

- Simplify design
  - Reassign the function "scrub hand"
    - New solution
- User-defined Problems
  - New problem
- General Solutions
  - New solution

Rank Solutions...

Problem description:

```

graph LR
    A[scrubbing material] -- scrub --> C[hand]
    B[liquid soap] -- scrub --> C
  
```

The function scrub hand is reassigned to the liquid soap.  
How to perform the function scrub hand by the element liquid soap? :

Solutions:

Knowledge Search Effects Principles Patterns User-defined

Query: How to scrub the hand

- Corporate Knowledge 3 relevant results
- Patent Collections 0 relevant results
- Scientific Effects 0 relevant results

Stop Refresh

Save Solution(s)...

Simplify Design

Fig 9

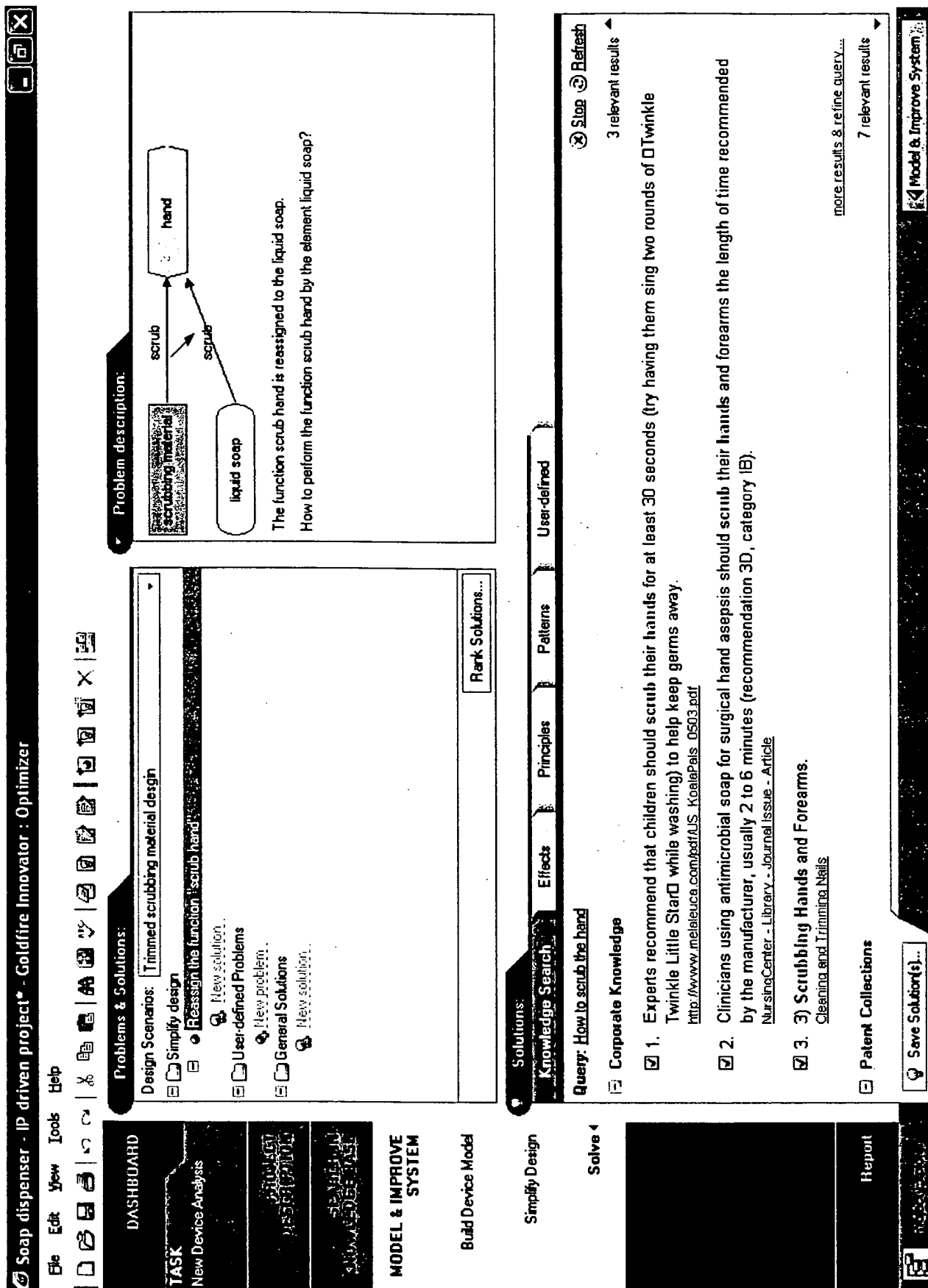


Fig. 4 Illustrative screen for a system in accordance with the principles of this invention